

SYNONYMY OF THE CARBONIFEROUS TRILOBITES *NAMUROPYGE* AND *COIGNOUINA*

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ABSTRACT. The first articulated specimen of *Namuropyge acanthina* (Coignou, 1890) is described from the Viséan of Treak Cliff, Derbyshire. This specimen confirms that cephala described as *Coignouina* Reed, 1943 and pygidia described as *Namuropyge* R. and E. Richter, 1939 are congeneric.

SPECULATION that the small Viséan otarionid cephalon *Coignouina* and the pygidium *Namuropyge* belong to the same trilobite is confirmed by the first articulated exoskeleton, collected by J. W. Tilsley from Treak Cliff, Derbyshire. *Coignouina* thus becomes a junior subjective synonym of *Namuropyge*.

SYSTEMATIC PALAEOLOGY

Family OTARIONIDAE R. and E. Richter, 1926

Subfamily CYPHASPIDINAE Přibyl, 1947

Genus NAMUROPYGE R. and E. Richter, 1939

Type species. *Namuropyge demaneti* R. and E. Richter, 1939, from the Namurian of Belgium.

Emended diagnosis. Otarionid trilobite with cephalon bearing two marginal spine rows, the outer row short and declined, the inner row massive and inclined. Facial suture ankylosed, eyes apparently without lentiferous surface; stalked. Thorax apparently of seven segments with outwardly directed stout spines on pleurae of at least fourth and seventh segments, and a large median axial spine on penultimate segment. Pygidium with seven to fifteen axial rings, four to ten pleural ribs; posterior pleural band distinctly elevated above the anterior band; pygidial margin spinose.

Namuropyge acanthina (Coignou, 1890)

Text-fig. 1a, b

Material and locality. British Museum (Natural History) no. It 13278, apron reef facies of Bee Low Limestones, Dinantian D₁ Zone; Treak Cliff, Derbyshire, England (SK 1343 8328).

Preservation. Local exfoliation of cuticle has occurred, affecting mainly the genal areas, crests of the thoracic axial rings, the pleural tips, and the pygidial margin (text-fig. 1a). The trilobite has been twisted in a vertical plane about its sagittal axis, resulting in slight telescoping of thorax segments one to four and disarticulation of the rest of the trunk. Segments five and six have been pushed forwards and rotated in a horizontal plane oblique to the sagittal axis such that their right side pleurae lie partly under the pleurae of segments three and four. The axial ring of segment five is seen because part of the fourth ring has been broken away, and it lies somewhat

forward on the articulating half-ring of segment six. Because of a sharp change in level at this point, there is little doubt that segment five is present and is not merely the articulating half-ring of the succeeding segment. Segment seven is seen on the right-hand side, having been moved forward of the pygidium and rotated so that its left pleura lies under the left anterior pleural field of the pygidium.



TEXT-FIG. 1. *Namuropyge acanthina* (Coignou, 1890), Treak Cliff, Derbyshire. Specimen It 13278; a, dorsal view; b, oblique lateral view; $\times 7$.

Description. The cephalon has been described by Osmólska (1967) and additional points noted by Miller (1973). The only further information on the cephalon provided by the present specimen is that it shows a pair of faint ridges running from the eye to the axial furrow.

Thorax apparently with seven segments, but disarticulated behind the fourth. Axis broad (tr.) and about one third total width (tr.); tapering slightly posteriorly. Each axial ring broad (sag.) with articulating half-ring and articulating furrow together at least two-fifths width (sag.) of posterior band; articulating half-ring strongly convex anteriorly. Large median spine-base on annulus of sixth axial ring. Anterior and posterior pleural bands nearly equal in width (exsag.), with broad articulating facets immediately exsagittal of lateral geniculation. Pleural tips possibly bluntly rounded. Fourth pleural band with stout spine base at geniculation, directed upwards and slightly posteriorly. Seventh posterior pleural band with similarly directed spine.

Pygidium subtriangular in outline; length: width ratio 0.55 excluding spines. Axis conical; anteriorly rather less than half pleural width, tapering posteriorly to rounded termination slightly anterior of margin; at least seven axial rings, of which at least five are distinct, becoming weaker posteriorly; rings strongly convex. Articulating

half-ring broad (sag.), strongly convex forwards. Four pairs of pleural ribs which widen slightly towards margin, with posterior pleural band elevated above the anterior and terminating in a stout spine close to the margin; pleural furrows somewhat broader than and more or less parallel with interpleural. Border narrow, steeply declined; three or four widely spaced terrace lines visible on external mould of doublure.

Ornament of cephalon sparsely granulate; pygidial axis with transverse row of granules on the highest part of the ring, becoming indistinct posteriorly.

Remarks. *Namuropyge acanthina* has a much reduced number of thorax segments (apparently seven) compared with the typical twelve to fourteen for otarionids. The median axial spine of *N. acanthina* is, however, on the sixth thoracic segment as in most other members of the family.

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